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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,408	04/08/2005	John Mak	100325.0198US	9198
34284	7590	04/30/2008		
Rutan & Tucker, LLP. 611 ANTON BLVD SUITE 1400 COSTA MESA, CA 92626			EXAMINER WU, IVES J	
			ART UNIT 1797	PAPER NUMBER
			MAIL DATE 04/30/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/511,408

**Applicant(s)**

MAK, JOHN

**Examiner**

IVES WU

**Art Unit**

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

- (1). Applicant's Amendments and Remarks filed on 3/11/2008 have been received.  
Claims 1-3, 10, 12 are amended.  
A new ground of rejections for claims 1-16 is presented in following.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

- (2). **Claims 1-16** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In **claim 1**, it recites: a solvent source that is configured to provide a carbon dioxide-depleted hydrogen sulfide-containing lean physical solvent; a vacuum stripper coupled to the solvent source and configured to produce an ultra-lean physical solvent from the carbon dioxide-depleted hydrogen sulfide-containing lean physical solvent. However, in Applicant's Specification, it does not disclose the physical solvent to be carbon dioxide-depleted (Abstract). Vacuum stripper 118 produces an acid gas stream 33 and a lean solvent stream 34 ([0029]). Therefore, the lean solvent may include both carbon dioxide and hydrogen sulfide, and Amendments raise a new matter.

In **claim 12**, it recites: using the substantially hydrogen sulfide-free stripping gas to strip hydrogen sulfide from a carbon dioxide-depleted hydrogen sulfide-containing lean physical solvent in a vacuum stripper to form the ultra-lean physical solvent. However, in Applicant's Specification, it does not disclose the lean physical solvent to be carbon dioxide-depleted (Abstract). It raises a new matter and rejected hence.

Rest claims are rejected because they depend on claims 1 and 12.

*Response to Arguments*

Applicant's arguments filed on 03/11/2008 have been fully considered but they are not persuasive.

Applicants argue that Miller et al (US04080424) teach an intermediate pressure separator and an atmospheric pressure separator (page 5, last paragraph, current Remarks). Applicants claim a high-pressure flash vessel and a medium pressure flash vessel. However, there is no teaching for the pressure range in high-pressure flash tank as well as medium pressure flash tank in Applicants' Specification. The intermediate pressure separator, low pressure separator disclosed by Miller et al (US04080424) still read on the limitations of high-pressure flash vessel, medium pressure flash vessel.

Applicants argue that Miller et al (US04080424) teach the intermediate pressure separator unambiguously and exclusively provides recycle hydrocarbon vapor to the absorber, the atmospheric pressure separator provides flashed gases comprising nearly all of the CO<sub>2</sub> and most of the H<sub>2</sub>S to the 1<sup>st</sup> and 2<sup>nd</sup> absorbers and not to the strippers (page 5, last paragraph, current Remarks). Although the low-pressure separator of Miller et al provide the stripping gas comprising nearly all of the CO<sub>2</sub> and most of the H<sub>2</sub>S to the 1<sup>st</sup> and 2<sup>nd</sup> absorbers, however, after the stripping gas absorbers for high efficiency removal of the sulfur containing compounds from the low pressure separator vapor output in the physical solvent cycle (Col. 5, line 49-57), it provides a lean H<sub>2</sub>S stripping gas to physical solvent stripper which reads on the limitation of "coupled to the vacuum stripper" and "provide a substantially hydrogen sulfur-free stripping gas to the vacuum stripper" of instant claim 1.

Applicants argue that Mak et al (US07192468B2) use desulfurized gas and even suggests H<sub>2</sub>S scavenger beds upstream of the absorber. Clearly, Mak et al is not concerned with stripping H<sub>2</sub>S from a lean solvent to produce an ultra-lean solvent and can not produce a hydrogen sulfide-containing lean physical solvent (page 6, 3<sup>rd</sup> paragraph, current Remarks). However, the configuration of gas removal absorber with a decreasing top-to-bottom thermal gradient relies upon the teaching of Mak et al (US07192468B2). The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather the test is what the combined teachings of the references would have suggested to those of ordinary skills in the art. *See In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981)*.

Applicant's arguments, see page 7, current Remarks, filed on 3/11/2008, with respect to rejection of claims 1-10 and 12-16 based on combined teaching of Ameen (US03594985), Gravis (US03841382) have been fully considered and are persuasive. The rejection of 12/11/2007 has been withdrawn.

Applicant's arguments with respect to amended claims 1 and 12 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to IVES WU whose telephone number is (571)272-4245. The examiner can normally be reached on 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Examiner: Ives Wu

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Date: April 24, 2008

/Duane S. Smith/  
Supervisory Patent Examiner, Art Unit 1797  
4-25-08